

REMARKS

The present application was filed on February 11, 2004 with claims 1 through 21. Claims 1-21 are presently pending in the above-identified patent application. Claims 1-7 and 12-16 are proposed to be amended herein.

5 In the Office Action, the Examiner rejected claims 3 and 14 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention and rejected claims 1-6 and 10-21 under 35 U.S.C. §103(a) as being unpatentable over Leighton et al. (United States Patent Number 6,512,646) in view of Price Jr. (United States Patent Number 6,184,727). The Examiner
10 indicated that claims 7-9 would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

Request for Updated Notice of References Cited (PTO-892)

The Examiner enclosed a Notice of References Cited (PTO-892) (attached) with the current Office Action, but it was not initialed. Applicants respectfully request an updated
15 Notice of References Cited (PTO-892) that includes the Examiner's initials.

Section 112 Rejections

Claims 3 and 14 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner asserts that it is unclear as to how the claimed
20 circuit is configured having a "combination" of transistors since in independent claims 1 and 11 Applicant regards the circuit as having "a [single] transistor."

Independent claims 1-7 and 12-16 have been amended to require a transistor *circuit*. Applicants believe that these amendments address the Examiner's concerns and respectfully request that the section 112 rejections be withdrawn.

Independent Claims 1, 11 and 17

25 Independent claims 1, 11, and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Leighton et al. in view of Price Jr. Regarding claim 1, the Examiner acknowledges that Leighton fails to explicitly show the transistor being connected across the element being shunted, but asserts that Price discloses a transistor M4 connected across the write

head for the purpose of shunting so current does not pass through the head during an overshoot mode (FIG. 2; col. 1, lines 36-43; col. 3, lines 49-52).

The present disclosure teaches that

an *impedance matched* write circuit is provided that *shunts one or more matching resistors*. The impedance matched write circuit includes an interconnect for connecting to a write head and *at least one resistor between a control voltage and the interconnect for impedance matching to the interconnect*. In one implementation, *a transistor is connected across the resistor to shunt current that would otherwise pass through the resistor during an overshoot mode*. The transistor may be a P-Channel Metal Oxide Silicon (PMOS) transistor or a combination of PMOS and NMOS transistors. A gate voltage of the transistor is controlled by a source such that the transistor is turned on in an overshoot mode and turned off during a steady state mode.
(Page 2, lines 11-19; emphasis added.)

As the Examiner acknowledges, Price teaches that a transistor M4 connected *across the write head* for the purpose of shunting. Independent claims 1, 11, and 17, as amended, require *at least one resistor between a control voltage and said interconnect* for impedance matching to said interconnect; and *a transistor circuit connected across said at least one resistor* to shunt at least a portion of the current that would otherwise pass through said at least one resistor during an overshoot mode.

Thus, Leighton et al. and Price Jr., alone or in combination, do not disclose or suggest at least one resistor between a control voltage and said interconnect for impedance matching to said interconnect; and a transistor circuit connected across said at least one resistor to shunt at least a portion of the current that would otherwise pass through said at least one resistor during an overshoot mode, as required by independent claims 1, 11, and 17, as amended.

Dependent Claims 2-10, 12-16 and 18-21

Dependent claims 2-6, 10, 12-16, and 18-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Leighton et al. in view of Price Jr.

Claims 2-10, 12-16, and 18-21 are dependent on claims 1, 11, and 17, respectively, and are therefore patentably distinguished over Leighton et al. and Price Jr., alone or in combination, because of their dependency from independents claim 1, 11, and 17 for the reasons set forth above, as well as other elements these claims add in combination to their base claim. The Examiner has already indicated that claims 7-9 would be allowable if rewritten in

independent form including all of the limitations of the base claims and any intervening claims.

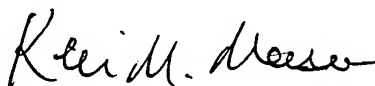
All of the pending claims, i.e., claims 1-21, are in condition for allowance and such favorable action is earnestly solicited.

5 If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,

10

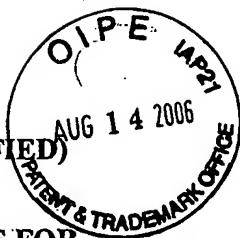


Date: August 10, 2006

15

Kevin M. Mason
Attorney for Applicants
Reg. No. 36,597
Ryan, Mason & Lewis, LLP
1300 Post Road, Suite 205
Fairfield, CT 06824
(203) 255-6560

FORM PTO-1449 (MODIFIED)



Applicant: Hao Fang
Cameron C. Rabe
Case: 2-4
Serial No.: Unassigned
Filing Date: Concurrently Herewith
Group: Unassigned

COPY

**LIST OF PUBLICATIONS FOR
APPLICANT'S INFORMATION
DISCLOSURE STATEMENT**

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS/SUBCLASS	FILING DATE IF APPROPRIATE
DLN	6,121,800	09/19/00	Leighton et al.	327/110	
DLN	6,512,646	01/28/03	Leighton et al.	360/46	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	COUNTRY	CLASS/SUBCLASS	TRANSLATION YES NO
—					
—					
—					
—					
—					
—					

OTHER DOCUMENTS

EXAMINER INITIAL	REF NO.	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.
—		
—		
—		

Examiner /Daniell L. Negron/

Date Considered 05/01/2006

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.